

REMARKS

1) A Request for Continued Examination (RCE) Transmittal is submitted herewith, subsequent to the Examiner's final rejection of claims 1, 2, 10, and 11 in this application.

2) Pursuant to the RCE, Applicants have amended independent claims 1 and 2 as shown above, to now require that the inventive silver alloys do not contain magnesium or zinc. This effectively limits the scope of the claim 1 to an alloy consisting essentially of silver; gold as a first dopant element; and any of indium, terbium, gadolinium, neodymium, holmium, yttrium, praseodymium, samarium, ytterbium, lanthanum, or cerium as a second dopant element, wherein a total of the concentration of the first dopant element and the concentration of the second dopant element are 0.01 to 2.0 atomic %. The scope of claim 2 is now limited to an alloy consisting essentially of silver; palladium as a first dopant element; and any of indium, terbium, gadolinium, neodymium, holmium, yttrium, praseodymium, samarium, ytterbium, lanthanum, or cerium as a second dopant element, wherein a total of the concentration of the first dopant element and the concentration of the second dopant element are 0.01 to 2.0 atomic %.

Support for these amendments can be found throughout the specification, where specific materials for the dopant elements are listed, such as from page 5 line 22 through page 6 line 1. Specifically, Tables 1-3 show particular embodiments of alloys consisting essentially of Ag-Au-In according to claim 1, as well as alloys consisting essentially of Ag-Pd-In of according to claim 2. It is submitted that no new matter is added by the above amendments to the claims, and that all grounds of rejection have been overcome by the instant amendment.

3) The Examiner has provisionally rejected claims 1-2 and 11 under the non-statutory, judicially created doctrine of obviousness-type double patenting over claims 1-19 of copending U.S. Pat. App. 10/575,332. The Examiner has further provisionally rejected

claims 1-2 and 11 under the non-statutory, judicially created doctrine of obviousness-type double patenting over claims 1-19 of copending U.S. Pat. App. 10/577,870.

It should be first noted that the remaining claims in this application are 1, 2, 10, and 11. Applicants believe that the Examiner has inadvertently overlooked claim 10 in his rejections of claims 1, 2, and 11. Thus, it is urged that claim 10 is still pending in this case, and Applicant's arguments herein relate to all of claims 1, 2, 10, and 11.

It should first be noted that the first citation, copending Application No. 10/575,332 has been abandoned. Thus, the double patenting rejection based on this application is now moot. Regarding the second citation, Applicants previously submitted a terminal disclaimer relating to copending Application No. 10/577,870 which has been approved by the Examiner on August 24, 2009. In view of this terminal disclaimer, it is respectfully urged that this obviousness-type double patenting rejection has been overcome.

4) The Examiner has rejected claims 2 and 11 under 35 U.S.C. 103 over JP 2002-129259 (hereinafter JP '259). However, Applicants respectfully submit that JP '259 fails to teach or suggest an alloy having the required components of the presently amended claims.

As presently amended, claims 2 and 11 both include a silver alloy for use in a reflective film, *consisting essentially of*: silver; palladium as a first dopant element; and any of indium, terbium, gadolinium, neodymium, holmium, yttrium, praseodymium, samarium, ytterbium, lanthanum, or cerium as a second dopant element, wherein a total of the concentration of the first dopant element and the concentration of the second dopant element are 0.01 to 2.0 atomic %. As stated above, Tables 1-3 show particular embodiments of alloys consisting essentially of Ag-Pd-In of according to claim 2. Magnesium has been removed from the list of second dopant elements according to the present amendment. The inventive alloys must therefore contain silver, palladium, and any of the above listed second dopant materials. Such a combination is not taught by JP '259.

First, it is urged that while JP '259 discloses a silver alloy which contains silver and optionally palladium, *nowhere* does the reference teach or suggest an alloy of silver, palladium, and a second dopant element selected from the materials required by the present claims. That is, it is clear that nowhere does JP '259 mention indium, terbium, gadolinium, neodymium, holmium, yttrium, praseodymium, samarium, ytterbium, lanthanum, or cerium at all. It is submitted that one skilled in the art would not have been inspired to formulate a silver alloy having the particular combination of components as presently claimed, upon a reading of JP '259.

Furthermore, it is urged that the transitional phrase "consisting essentially of" limits the scope of a claim to the specified materials or steps "and those that *do not* materially affect the basic and novel characteristic(s)" of the claimed invention. In *re Herz*, 537 F.2d 549, 551-52, 190 USPQ 461, 463 (CCPA 1976) (emphasis in original). Thus, the present claim 2 clearly defines the inventive silver alloys as those which contain silver, palladium as a first dopant element, and a second dopant element of the required materials, while *excluding* all others which would materially affect the basic and novel characteristics of the claimed alloys. In contrast, the JP '259 reference *requires* the presence of gold in their alloy, as it states that "Ag is used as the main component, 0.1 to 3.0 wt.% Au is added to the Ag", and further at least one or more elements listed in their abstract are added to the Ag. In contrast, the "consisting essentially of" language of the present claim 2 effectively *excludes* gold, which would clearly materially affect the basic and novel characteristics of the claimed alloy. The Examiner asserts that Applicants have not shown how the additional required elements of the prior art would affect the characteristics of the claimed alloys. However, it *cannot* be said that adding gold into the specifically formulated alloys of claims 2 and 11 which contain only palladium as a first dopant element would *not* have a material affect on the characteristics of the claimed compositions. It is urged that the Examiner is looking beyond the scope of the presently amended claims, and must examine the claims before him *as they are written*. The presently claimed alloys of claim 2 *consist essentially of*: silver; palladium as a first dopant element; and any of indium, terbium, gadolinium, neodymium, holmium, yttrium,

praseodymium, samarium, ytterbium, lanthanum, or cerium as a second dopant element. The alloys of the present claim 2 are particularly formulated to be absent of gold. It is submitted that JP '259 *does not* teach or suggest any silver alloy which does not contain gold, and thus fails to obviate the presently claimed silver alloys of claims 2 and 11.

Applicants submit that an artisan having common sense at the time of the invention would not have reasonably considered modifying the silver alloys of JP '259 to *exclude* gold, and instead contain the second dopant materials required by the present claims. Again, *none* of the presently claimed second dopant materials, namely indium, terbium, gadolinium, neodymium, holmium, yttrium, praseodymium, samarium, ytterbium, lanthanum, or cerium are taught by the reference *at all*. Thus, it is submitted that JP '259 provides no motivation for one of ordinary skill in the art to formulate the particular silver alloys of the present claims. For the above reasons it is respectfully submitted that the 35 U.S.C. 103 rejection of claims 2 and 11 has been overcome and should be withdrawn.

5) The Examiner next rejects claims 1 and 2 under 35 U.S.C. 103 over U.S. Patent No. 4,494,833 to Takamura. The Examiner takes the position that one skilled in the art would have obviously optimized the alloy materials of Takamura to formulate the presently claimed silver alloys. Applicants respectfully urge that this is not the case.

First, claims 1 and 2 of the present invention each relate to silver alloy *for use in a reflective film* such as in optical recording media, displays and the like. As stated throughout the specification, the inventive alloys are specifically formulated to exhibit superior reflectivity properties. In contrast, the alloys disclosed by Takamura reference have *nothing* whatsoever to do with reflective properties or reflective films at all. That is, the alloys of Takamura are used as a covering (see feature 7 of Fig.2) for coating the metal arms of eyeglass frames. Thus, not only is Takamura in a non-analogous art to the present invention, but the motives of Takamura are clearly different from the present invention. It is urged that whether or not some of the components of the presently claimed alloys may coincidentally be present in the coating materials of Takamura, one

skilled in the art clearly would not have been inspired to optimize the alloys of Takamura for enhancing their reflectivity properties, since their only use is for coating metal arms of eyeglass frames.

Nevertheless, for purposes of clarity, the present claims have been amended to no longer include zinc or magnesium in their alloy materials. Thus, it is urged that this ground of rejection has been overcome for the reasons stated below.

Claim 1, as amended herein, relates to a silver alloy for use in a reflective film, consisting essentially of: silver; gold as a first dopant element; and any of, indium, terbium, gadolinium, neodymium, holmium, yttrium, praseodymium, samarium, ytterbium, lanthanum, or cerium as a second dopant element, at particular concentrations. Again, Tables 1-3 show particular embodiments of alloys consisting essentially of Ag-Au-In according to claim 1.

As stated above, the transitional phrase "consisting essentially of" limits the scope of a claim to the specified materials or steps "and those that *do not* materially affect the basic and novel characteristic(s)" of the claimed invention. In re Herz, 537 F.2d 549, 551-52, 190 USPQ 461, 463 (CCPA 1976) (emphasis in original). Thus, the present claim 1 clearly requires that the claimed alloys contain silver, gold as a first dopant element, and a second dopant element of the required materials, while *excluding* all other components which would materially affect the basic and novel characteristics of the claimed alloys. The Takamura reference *requires* the presence of copper, zinc, and nickel in both their silver base alloys and gold base alloys. However, these materials are effectively excluded from the presently claimed alloy by the "consisting essentially of" language of claim 1. The Examiner asserts that Applicants have not shown that the additional required elements of the prior art would affect the characteristics of the claimed alloys. However, it *cannot* be said that adding copper, zinc, and nickel into the specifically formulated alloys of the present claims would *not* have a material effect on the characteristics of the claimed compositions. It is urged that the Examiner is looking

beyond the scope of the presently amended claims, and must examine the claims before him *as they are written*. The alloys of the presently amended claim 1 *consist essentially of*: silver; gold as a first dopant element; and any of indium, terbium, gadolinium, neodymium, holmium, yttrium, praseodymium, samarium, ytterbium, lanthanum, or cerium as a second dopant element. Clearly, the presently claimed alloys are particularly formulated to be absent of copper, zinc, and nickel. It is submitted that Takamura *does not* teach or suggest any alloy which does not contain copper, zinc, and nickel, and thus fails to obviate the present claims.

Regarding claim 2 as amended herein, this claim relates to a silver alloy for use in a reflective film, consisting essentially of: silver; palladium as a first dopant element; and any of indium, terbium, gadolinium, neodymium, holmium, yttrium, praseodymium, samarium, ytterbium, lanthanum, or cerium as a second dopant element, at particular concentrations. Again, particular embodiments of alloys consisting essentially of Ag-Pd-In of according to claim 2 are shown in Tables 1-3 of the specification. As stated above, Applicants urge that the “consisting essentially of” language of the present claim 2 effectively *excludes* gold from the present silver alloy. In direct contrast, Takamura’s silver base alloy *requires* the presence of gold. Furthermore, the present claim language effectively excludes copper, zinc, and nickel which are all *required* in the alloys of Takamura. Since the cited reference fails to provide any alloy which does not contain gold, copper, zinc, or nickel, it is submitted that this reference fails to teach or suggest any of the presently claimed alloys according to claim 2, as presently amended.

It is submitted that one skilled in the art would not have been inspired to formulate the particular silver alloy formulations required by the presently amended claims 1 and 2, based on the teachings and required components of Takamura. Thus, for all of the above reasons, Applicants respectfully submit that the 35 U.S.C. 103 rejection has been overcome and should be withdrawn.

The undersigned respectfully requests re-examination of this application and believes it is now in condition for allowance. Such action is requested. If the Examiner believes there

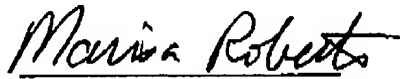
is any matter which prevents allowance of the present application, it is requested that the undersigned be contacted to arrange for an interview which may expedite prosecution.

Respectfully submitted,



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I hereby certify that this paper is being facsimile transmitted to the Patent and Trademark Office (FAX No. 571-273-8300) on September 21, 2009.



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